



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/665,059	09/18/2003	John E. Rogers	J. Rogers	5491

7590 03/25/2004

David G. Henry
900 Washington Avenue
P.O. Box 1470
Waco, TX 76703-1470

EXAMINER

CONLEY, FREDRICK C

ART UNIT	PAPER NUMBER
----------	--------------

3673

DATE MAILED: 03/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/665,059

Applicant(s)ROGERS, JOHN E. **Examiner**

Fredrick C Conley

Art Unit

3673

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 September 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 8, 11-13, 17, 20 and 22 is/are rejected.
- 7) ☒ Claim(s) 3-7, 9, 10, 14-16, 18, 19, 21 and 23 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Drawings

The drawings are objected to because the shading in Figure 1 is too dark to make out the arrows 2 & 5, the cutout, and the opening. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

Claims 1-3, 12, 15, and 19 are objected to because of the following informalities:

Claim 1 recites the limitations "the support system", "the pores", and "the materials". There is insufficient antecedent basis for these limitations in the claim. It is also unclear what the Applicant is attempting to encompass with the limitations "or other structure", "or otherwise designed or configured", "or other means", "the pores and/or vacant regions", "optionally" recited in the claim. Furthermore, there is no basis in the specification for the ingress and egress of gas into or out of the pores and vacant regions within the materials encased by the bladder.

Claim 2 recites the limitations "the encased material", "the support material", "the material", "the opening", "the center like". There is insufficient antecedent basis for these limitations in the claim.

Claims 6-7, 10, 14, 16-18, and 22-23 recite the limitation "the encased material". There is insufficient antecedent basis for these limitations in the claims.

Claim 11 recites the limitation "the surrounding membrane". There is insufficient antecedent basis for these limitations in the claim.

Art Unit: 3673

Claim 12 recites the limitations "the support system" and "the materials". There is insufficient antecedent basis for these limitations in the claim. It is also unclear what the Applicant is attempting to encompass with the limitations "the other structures", "or otherwise designed or configured", "or other means", "the pores and/or vacant regions", "the materials encased by said bladder" and "optionally" recited in the claim.

Furthermore there is no basis in the specification for the ingress and egress of gas into or out of the pores and vacant regions within the materials encased by the bladder.

Claim 13, "recites the limitations or other structure", "the material", and "said material". There is insufficient antecedent basis for these limitations in the claim.

Claim 15 recites the limitations "the encased material", "the hole" and "the remaining material". There is insufficient antecedent basis for these limitations in the claim.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1 and 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Art Unit: 3673

It is unclear how the support as disclosed in the specification reduces cross contamination between a patient and the surroundings, and reduces the incidence of dust mites.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 13, 17, 20, and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Pat. No. 6,092,249 to Kamen et al.

With respect to claim 13, Kamen, as best understood, discloses a method for reducing the possibility of development of deleterious body lesions in a human body under conditions of continued bed confinement by;

placing a cushion 42 designed to minimize localized stress concentrations caused by the weight of the body thereon, within a bladder 44 impervious to gases,

completely encasing 48 said cushion; and

varying the fluid pressure in the material as a means of controlling the resiliency of said material to the desired support level (col. 4 lines 24-34).

Claim 17, wherein the encased material comprises a seat cushion of suitable support material (col. 6 lines 36-39).

Art Unit: 3673

Claim 20, wherein said cushion comprises a plurality of modules 42, separated from one another and contained within individual fluid-tight membranes 44 (col. 6 lines 35-60).

Claim 22, wherein the encased material comprises a seat cushion (col. 6 lines 35-36).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2, 8, and 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 5,675,855 to Culp in view of U.S. Pat. No. 3,798,686 to Gaiser and in further view of U.S. Pat. No. 5,048,137 to Rogers.

Claim 1, Culp, as best understood, discloses a device comprising:

a foam mattress (10) cushion containing cutout portions 24;

a bladder (14,16) impervious to gases or other fluids, completely encasing said cushion;

a passageway 20 to allow and control the ingress and egress of a gas into the pores within the materials encased by the bladder. Culp fails to disclose a pressure pump to allow continuous variation of the fluid pressure within said bladder. Gaiser discloses a mattress having a pressure pump (col. 4 lines 52-56). It would have been

Art Unit: 3673

obvious to one having ordinary skill in the art at the time of the invention to employ a pressure pump with the cushion of Culp as taught by Gaiser in order to adjust the support to individual needs. Culp also fails to disclose the cut-outs reducing local stresses on a supported body. Rogers discloses a body support having a cutout portion (col. 2-3 lines 18-68 & 1-4). It would have been obvious to one having ordinary skill in the art at the time of the invention to configure the cut-out in the support of Culp as taught by Rogers in order to reduce the shear stresses imposed on the anatomy.

Claim 2, wherein the encased material comprises a foam mattress in which portions of the support material have been removed or omitted in selected regions of the material (col. 3 lines 35-36), and the sides of the opening thus formed are such that they slope outward and downward from the center like a truncated cone (col. 3 lines 55-56) (Culp).

Claim 8, wherein said bladder is permanently sealed to prevent any escape of the fluid contained therein (col. 3 lines 5-8).

Claim 11, where a variable orifice 20 is contained within the surrounding membrane to control the rate of gaseous exchange from within the membrane to outside of the membrane and vice versa (col. 3 lines 9-14).

Claim 12, Culp, as best understood, discloses a device comprising:

a foam mattress (10) cushion containing cutout portions 24; and

a passageway 20 to allow and control the ingress and egress of a gas into the pores within the materials encased by the bladder. Culp fails to disclose a membrane permeable to gases completely encasing said mattress and a pressure pump to allow

Art Unit: 3673

continuous variation of the fluid pressure within said bladder. Gaiser discloses a permeable membrane completely encasing said mattress and having a pressure pump (col. 4 lines 29-30)(col. 4 lines 52-56). It would have been obvious to one having ordinary skill in the art at the time of the invention to employ a pressure pump with the cushion of Culp as taught by Gaiser in order to adjust the support to individual needs. Culp also fails to disclose the cut-outs reducing local stresses on a supported body. Rogers discloses a body support having a cutout portion (col. 2-3 lines 18-68 & 1-4). It would have been obvious to one having ordinary skill in the art at the time of the invention to configure the cut-out in the support of Culp as taught by Rogers in order to reduce the shear stresses imposed on the anatomy.

Allowable Subject Matter

Claims 3-7, 9-10, 14-16, 18-19, 21, and 23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Art Unit: 3673

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fredrick C Conley whose telephone number is 308-7468. The examiner can normally be reached on m-th m-fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Shackelford can be reached on 308-2978. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

FC



**TERI PHAM LUU
PRIMARY EXAMINER**